

BRIEFLY NOTED

The Birds of Israel.—Hadoram Shirihai. 1996. Academic Press, San Diego, CA. lxxxix + 692 pp., 500 color photographs, 200 line drawings. ISBN 0-12-640255-8. \$99.00 (cloth).

This tome (weighing about 3.5 kg) is one of the most incredible bird books I have ever seen. It has accounts for 511 species (both current and extinct), which include a breeding bird atlas map, range maps of distributions for all 4 seasons, ringing (bird-banding) data, specimen information, and habitat distributions. There are wonderful color photographs of nearly every species mentioned, all taken within boundaries of the country, and color photographs of all the major habitat types mentioned in the text. Also included are plastic map overlays of various environmental factors (e.g., altitude, soils, aquatic habitats), so that distributions of individual species can be directly compared to those environmental factors. The literature cited is extensive and there also is a gazetteer of all places mentioned in the text. Apparently in the works for over 10 years, this is an impressive publication by an author who now is in his mid-30s. This clearly will be the definitive work on the birds of Israel for many years to come and should be part of any ornithological reference library.

Behavioral Mechanisms in Evolutionary Ecology.—Edited by Leslie A. Real. 1994. University of Chicago Press, Chicago. 469 pp. ISBN 0-226-70595-1. \$29.95 (paper), \$80.00 (cloth).

This book grew out of a symposium held at the annual meeting of the American Society of Naturalists in 1992, and 5 of the 19 chapters have been published previously in *American Naturalist*. After an opening chapter by Real, the book is divided into 5 sections. The first is Psychological and Cognitive Foundations, which includes an interesting chapter by Alan Kamil on animal intelligence (also previously published) and a chapter by John Krebs and Alastair Inman on learning and foraging. The second part on Communication has only 2 chapters, one by R. Haven Wiley on errors and deception in animal communication (primarily bird song). The third section deals with Neural, Developmental, and Genetic Processes, and includes a chapter on development of bird song by Arthur P. Arnold, and a presentation by Meredith West and Andrew King that reviews their long-term work on song development and recognition in cowbirds. The fourth section also has only two chapters, but both are of interest: Ellen Ketterson and Val Nolan reviewing their work on hormones and behavior of juncos, and Marlene Zuk on the relationship between immunology and behavior. The four chapters in the last section on Social Context of Behavior do not deal with birds. Most chapters have extensive literature cited sections, and there is an author and subject index. This book would be ideal for a graduate seminar.

Large-scale Ecology and Conservation Biology.—Edited by P. J. Edwards, R. M. May, and N. R. Webb.

1994. Blackwell Science, Cambridge, MA. 375 pp. ISBN 0-632-03832-2. \$34.95 (cloth), \$75.00 (paper).

This volume is the outcome of the 35th Symposium of the British Ecological Society, held with the Society for Conservation Biology at the University of Southampton in 1993. The symposium had three stated goals: to examine the nature of large-scale ecological processes, to discuss problems associated with working at a large scale, and to assess the importance of ecological ideas in decision making and policy of social, economic, and political issues. The 16 chapters cover a wide variety of topics, including animal distributions (Lawton, Nee, Letcher, and Harvey), metapopulations and conservation (Harrison), farmland bird species declines in Britain (Gates, Gibbons, Lack, and Fuller), and the Northern Spotted Owl (*Strix occidentalis caurina*) (Wilcove). This book could be the basis of a graduate seminar if participants had a varied background.

Prairie Conservation.—Edited by Fred B. Samson and Fritz L. Knopf. 1996. Island Press, Washington, D.C. 352 pp. ISBN 1-55963-427-8. \$28.00 (paper), \$50.00 (cloth).

This book is about the grasslands of North America, with the major emphasis on those within the United States. There are four parts: a short "value in prairie" section with 2 chapters, an ecology section with chapters on the three main types of grasslands (shortgrass, mixed grass, and tallgrass) plus prairie wetlands (with many references to bird use of those wetlands), a section on prairie animals (5 chapters), and a section on prairie conservation (9 chapters). Fritz Knopf's chapter on prairie birds puts that depauperate avifauna in both an historical and current context. Grasslands, particularly the tallgrass prairies, have been disappearing at an alarming rate, making this work very timely. This book will be of great value to anyone interested in North American grasslands and to those that want a single volume that covers the ecology of all North American grasslands.

Biodiversity in Managed Landscapes.—Edited by Robert C. Szaro and David W. Johnson. 1996. Oxford University Press, New York. 778 pp. ISBN 0-19-507958-2. \$55.00 (cloth).

This volume grew out of a symposium by the same title that was coordinated by the World Conservation Union, the United Nations Environment Program, and the World Resources Institute, and cosponsored by about 20 other organizations, which took place in Sacramento, California in July of 1992. There are 5 sections which encompass 46 chapters: Principles of Biodiversity; Inventory, Monitoring, and Assessment; Strategies for Maintaining Biodiversity; Maintaining Biodiversity on a Landscape Scale; and Policy and Social Considerations. A sixth section is a summary chapter by Szaro. Only one chapter explicitly deals with birds: Hansen and Hounihan's study of tree re-

tention and avian diversity in the Oregon Cascades. However, the names of many authors of chapters will be familiar to avian ecologists. There is a good mixture of temperate and tropical papers, with participation by several foreign researchers, particularly from Australia. Most presentations have extensive literature cited sections. This will be an important book for those people involved with conservation and management of natural resources. This book would be an excellent choice for a graduate seminar if the price were lower; it currently is not available in paper.

Long-term Studies of Vertebrate Communities.—

Edited by Martin L. Cody and Jeffrey A. Smallwood. 1996. Academic Press, San Diego, CA. 597 pp. ISBN 0-12-178075-9. \$69.95 (cloth).

This book also is based on a symposium, one that was held at the Ecological Society of America meeting in 1993. There are major sections on fish, reptiles and amphibians, birds, and mammals, most by well-known researchers. There are 4 chapters in the bird section. The first by A. Brosset summarizes his 20-year studies of a 30-ha campus at M'Passa in Northeastern Gabon that was cut out of the rainforest in 1969. He focuses on closely related species (which he terms "sibling species") and is most interested in the 30 new congeners that appeared in the deforested area that have close relatives in the surrounding rainforest. The chapter ends with a lengthy speculation concerning the origin of early successional habitat birds in Africa. The next chapter by Cody, entitled "Bird Communities in

the Central Rocky Mountains," is a curious collection of attempts to recensus areas in the early 1990's that were censused originally at some point in the past. Some comparisons are relatively weak, e.g., some are from censuses within a habitat type that differ both spatially and temporally, and some datasets were surveys collected in the 1930's. Most of what is presented reflects long times between data points, rather than truly long-term research. Not so with the last two presentations. The Grants present yet another overview of their research on the Galapagos Islands, entitled "Finch Communities in a Climatically Fluctuating Environment." Even though I had just finished reading Weiner's *Beak of the Finch* (which I would recommend to everyone), I still found this chapter interesting, as they are stressing the importance of time in ecological research in this presentation. To them, a long-term study has to encompass two or more average generation times. The last bird chapter by Douglas Johnson summarizes 25 years of annual duck censuses conducted at the Woodworth Study Area in east-central North Dakota. The dogma is that competition is not important in structuring breeding duck communities, and, indeed, Johnson found that densities of most of the 11 species studied were positively correlated with each other, suggesting that breeding ducks are responding similarly to changes in environmental conditions. This book would be great for a seminar in vertebrate ecology, but the price is high and the book is not available in paper.—KIMBERLY G. SMITH, Department of Biological Sciences, University of Arkansas, Fayetteville, AR 72701, kgsmith@comp.uark.edu